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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/684,208	10/10/2003	Allan O. Devantier	11336-545 (P03121US)	4853
757 7590 03/06/2008 BRINKS HOFER GILSON & LIONE P.O. BOX 10395 CHICAGO, IL 60610			EXAMINER PAUL, DISLER	
			ART UNIT 2615	PAPER NUMBER
			MAIL DATE 03/06/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/684,208	Applicant(s) DEVANTIER ET AL.	
	Examiner Disler Paul	Art Unit 2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters; prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-69 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,16,48-53,54,66-69 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>8/13/04;5/8/07</u> . | 6) <input type="checkbox"/> Other: ____ |

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DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

1. Claims 1,16,48,51,54,66 are provisionally rejected on the ground of statutory - type double patenting as being unpatentable over claim 1,15,27,81,105,106-107 of copending Application No. 10,684,222 for all the independent claims.

This is a provisional statutory double patenting rejection because the claims have not been patented and the case [10,684,222] is just simply a broader version of the application claims - [i.e. speaker configuration-speaker locations].

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 48-53; 66-68 are rejected under 35 U.S.C. 101 because they pertain to non-statutory subject matters.

The claims are pertained solely to a data structure without recitation of any step(s) to be performed on a computer or any process activity that ties to physical acts or data manipulation representing physical object or activities to achieve a practical application.

"Data structures **not claimed** as embodied in computer-readable media are descriptive material per se and **are not statutory** because they are not capable of causing functional change in the computer. See, e.g., Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1760 (Claim to a data structure per se held nonstatutory.). Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure's functionality to be realized. In contrast, a claimed computer-readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware

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components which permit the data structure's functionality to be realized, and is thus statutory."

See Interim Guidelines on 35 USC 101, Annex IV (a): Functional Descriptive Material.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11. Claim 48-53, 66-69 are rejected under 35 U.S.C. 102(e) as being anticipated by Rabinowitz et al. ("2003/0179891 A1").

Re claim 48, Rabinowitz et al. disclose a machine readable medium having software for causing a computer to execute a method ("fig.1; page 2 [0021] line 54-64"), the machine readable medium comprising: instructions for recording at least one potential number of speakers ("fig.1(20); instructions for recording transfer functions at least one listening position ("fig.3(20-n)"); instructions for modifying the transfer functions based on the potential number of speakers in order to generate predicted transfer functions ("Page

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4/(line 29-32/frequency response for the combine output speakers is possible and further predetermined frequency response in page 2[0012] line 5-6; fig.4(56)"); and instructions for statistically analyzing the predicted transfer functions ("FIG.1(18/ with more specifically fig.4(s56-58)/equalizing compared/analyzed to stored desired speaker characteristic location and update with filter; page page 5[0035] line 3-8").

Re claims 49, the machine readable medium of claim 48, where the instructions for recording transfer functions comprise for recording at a plurality of listening positions; and where the instructions for statistically analyzing the predicted transfer functions comprise instructions for analyzing the predicted transfer functions across the plurality of listening positions (fig.3-4; page 4 par [0029]).

Re claim 50, the machine readable medium of claim 48, further comprising instructions for recommending a specific number of speakers, the specific number of speakers being selected from one of the plurality of potential number of speakers (par[0024]).

52 has been analyzed and rejected with respect to claim 49.

Re claim 51 has been analyzed and rejected with respect to claim 48.

Re claim 53 has been analyzed and rejected with respect to claim 50.

Re claim 66, the machine readable medium having software for causing a computer to execute a method, the machine readable medium comprising: instructions for determining potential types of speakers; instructions for recording transfer functions at a listening position in the audio system with the potential types of speaker in a plurality of potential speaker locations (fig.3; par p0030)/equalization is done for each speaker at location based on frequency analyzations-denote potential type is determined) ; instructions for modifying the transfer functions based on the potential types of speakers and based on the potential speaker locations in order to generate predicted transfer functions; instructions for statistically analyzing the predicted transfer functions (fig.1,3; par[004,0024,0028]/equalization is done on per speakers and modifying so to improve room acoustic feature).

Re claim 67 has been analyzed and rejected with respect to claim 60.

Re claim 68, the machine readable medium of claim 66, further comprising instructions for recommending at least one type of speaker ("page 2[0021] line 13-30").

Re claim 69, the audio system of claim 1, where modifying the transfer functions comprises modifying the transfer functions based on the potential configurations in order to generate predicted transfer functions at each of the plurality of listening positions (fig.3-5/modifying as per speaker is done for plurality of locations).

Allowable Subject Matter

As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with.

2. Claims 1-47, 54-65 contain allowable subject matters but would only be allowed if applicant's has overcome the double patent rejections.

RE claim 1, While Rabinowitz et al. disclose of the method with the audio system, the method comprising: generating acoustic signals from at least one loudspeaker placed at potential loudspeaker locations; recording transfer functions at a plurality of listening positions for the generated acoustic signals; determining at least one potential number of speakers; modifying the transfer functions based on the potential number of speakers in order to generate predicted transfer functions; and analyzed across at least one frequency the predicted transfer function for a plurality of listening positions.

However, neither of the prior art fail to disclose of the specific wherein the statistically analyzing across at least one frequency of the predicted transfer functions for the plurality of listening positions; and selecting the number of speakers based on the statistical analysis.

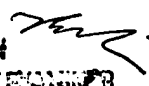
Re claims 16,54 contain similar allowable subject matter as recited in claim 1.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Disler Paul whose telephone number is 571-270-11187. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chin Vivian can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


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